

# Product data sheet

Specifications



discrete output module, Modicon TM5, 12 DO, 24V DC, 0.5 A, 1 wire

TM5SDO12T

## Main

Range Of Product	Modicon TM5
Product Or Component Type	Discrete output module
Discrete Output Number	12
Discrete Output Type	Transistor

## Complementary

Range Compatibility	PacDrive LMC motion controller Modicon LMC058 Modicon M258
Product Compatibility	PacDrive LMC Eco PacDrive LMC Pro 2 PacDrive LMC Pro Motion controller Logic controller
Output Voltage	24 V DC
Output Voltage Limits	20.4...28.8 V
Discrete Output Logic	Source
Current Per Channel	0.5 A
Maximum Current Per Output Common	6 A
Colour	White
Peak Output Current	12 A
Switching Frequency	<= 500 Hz resistive
Response Time	<= 300 µs from state 0 to state 1 output <= 300 µs from state 1 to state 0 output
Maximum Leakage Current	5 µA when switched off
Protection Type	Reverse polarity protection Overload protection Short-circuit protection
Isolation	500 Vrms AC insulation between channel and bus No insulation between channels
Maximum Voltage Drop	<0.3 V at 500 mA output <2 V at 500 mA sensor supply
Maximum Supply Current For Sensors	500 mA
Current Consumption	52 mA 5 V DC bus 48 mA 24 V DC input/output
Maximum Power Dissipation In W	2.04 W

<b>Local Signalling</b>	1 LED green power supply 1 LED red power supply 12 LEDs yellow output status
<b>Electrical Connection</b>	1 wire
<b>Marking</b>	CE
<b>Net Weight</b>	0.06 lb(US) (0.025 kg)

## Environment

<b>Standards</b>	CSA C22.2 No 213 UL 508 CSA C22.2 No 142 IEC 61131-2
<b>Product Certifications</b>	GOST-R CSA cULus C-Tick
<b>Ambient Air Temperature For Operation</b>	14...131 °F (-10...55 °C) without derating horizontal installation) 14...140 °F (-10...60 °C) with derating factor horizontal installation) 14...122 °F (-10...50 °C) vertical installation)
<b>Ambient Air Temperature For Storage</b>	-40...158 °F (-40...70 °C)
<b>Relative Humidity</b>	5...95 % without condensation
<b>Ip Degree Of Protection</b>	IP20IEC 61131-2
<b>Pollution Degree</b>	2 IEC 60664
<b>Operating Altitude</b>	0...2000 m
<b>Storage Altitude</b>	0.00...9842.52 ft (0...3000 m)
<b>Vibration Resistance</b>	1 gn 8.4...150 Hz DIN rail 3.5 mm 5...8.4 Hz DIN rail
<b>Shock Resistance</b>	15 gn 11 ms
<b>Electromagnetic Compatibility</b>	Electrostatic discharge immunity test, 4 kV on contact IEC 61000-4-2 Electrostatic discharge immunity test, 8 kV in air IEC 61000-4-2 Susceptibility to electromagnetic fields, 1 V/m 2...2.7 GHz IEC 61000-4-3 Susceptibility to electromagnetic fields, 10 V/m 80...2000 MHz IEC 61000-4-3 Electrical fast transient/burst immunity test, 1 kV I/O IEC 61000-4-4 Electrical fast transient/burst immunity test, 1 kV shielded cable IEC 61000-4-4 Electrical fast transient/burst immunity test, 2 kV power lines IEC 61000-4-4 1.2/50 µs shock waves immunity test, 0.5 kV differential mode IEC 61000-4-5 1.2/50 µs shock waves immunity test, 1 kV common mode IEC 61000-4-5 Conducted RF disturbances IEC 61000-4-6 Conducted and radiated emissions CISPR 11

## Packing Units

<b>Unit Type Of Package 1</b>	PCE
<b>Number Of Units In Package 1</b>	1
<b>Package 1 Height</b>	0.79 in (2.000 cm)
<b>Package 1 Width</b>	2.13 in (5.400 cm)
<b>Package 1 Length</b>	4.13 in (10.500 cm)
<b>Package 1 Weight</b>	1.38 oz (39.000 g)
<b>Unit Type Of Package 2</b>	S02
<b>Number Of Units In Package 2</b>	97
<b>Package 2 Height</b>	5.91 in (15.000 cm)
<b>Package 2 Width</b>	11.81 in (30.000 cm)

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Package 2 Length	15.75 in (40.000 cm)
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Package 2 Weight	9.20 lb(US) (4.172 kg)
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## Contractual warranty

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Warranty	18 months
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

## Well-being performance

✓ Reach Free Of Svhc

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information [Yes](#)

✓ Pvc Free

## Certifications & Standards

**Reach Regulation**

[REACH Declaration](#)

**Eu Rohs Directive**

Pro-active compliance (Product out of EU RoHS legal scope)

[EU RoHS Declaration](#)

**China Rohs Regulation**

[China RoHS declaration](#)

**Environmental Disclosure**

[Product Environmental Profile](#)

**Weee**

The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

**Circularity Profile**

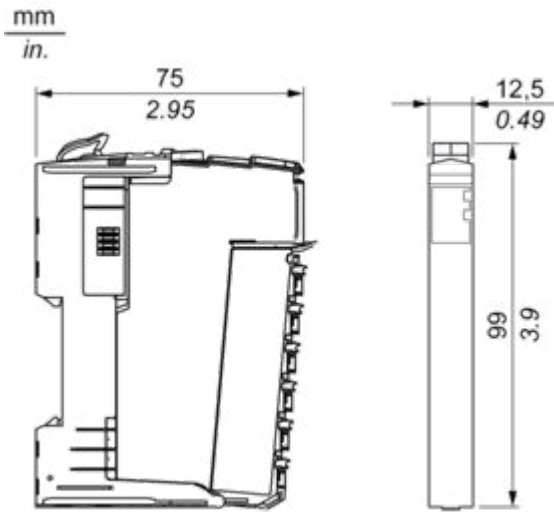
[End of Life Information](#)

Dimensions Drawings

TM5 Slice

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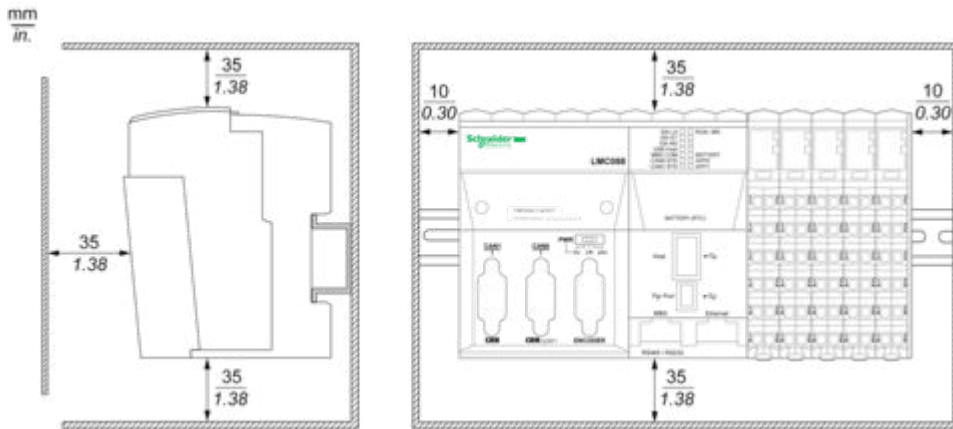
Dimensions



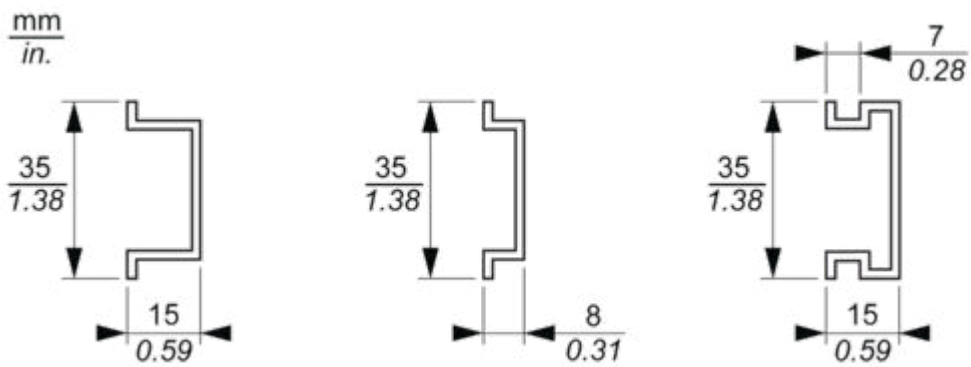
Mounting and Clearance

TM5 System

Spacing Requirements



Mounting on a DIN Rail








Connections and Schema

**TM5 System Wiring Recommendations**

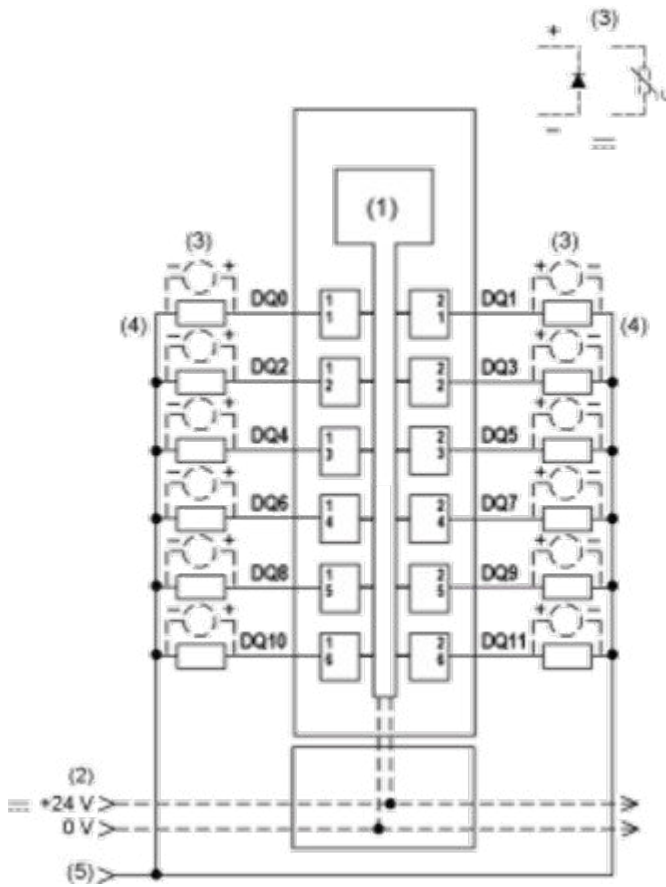
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**Wire Sizes to Use with the Removable Spring Terminal Blocks**

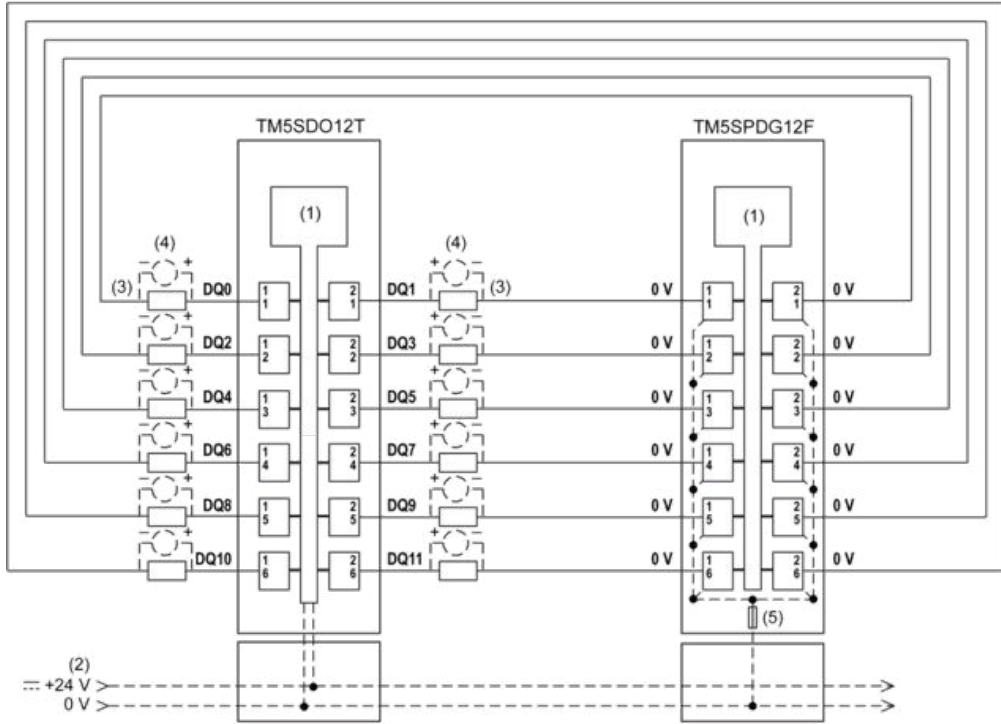
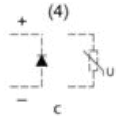
 mm in.				
mm <sup>2</sup>	0,08...2,5	0,25...2,5	0,25...1,5	2 x 0,25...2 x 0,75
AWG	28...14	24...14	24...16	2 x 24...2 x 18

Electronic Module 12DO 24 Vdc Tr 0.5 A 1 Wire

Wiring Diagrams



- (1) Internal electronics
  - (2) 24 Vdc I/O power segment integrated into the bus bases
  - (3) Inductive load protection
  - (4) 2-wire load
  - (5) 0 Vdc I/O power segment by external connection
- To connect 2-wire devices, you can add a TM5SPDG12F Common Distribution module:



- (1) Internal electronics
- (2) 24 Vdc I/O power segment integrated into the bus bases
- (3) 2-wire load
- (4) Inductive load protection
- (5) Integrated fuse type T slow-blow 6.3 A 250 V exchangeable